

DATE: April 19, 2001

TO: Region Engineers
Region Associate Delivery Engineers
Region Construction Engineers
TSC Managers
Resident/Project Engineers
Region Traveling Mix Inspectors (TMI)

FROM: C. Thomas Maki
Chief Operations Officer

Gary D. Taylor
Chief Engineer/Deputy Director
Bureau of Highway Technical Services

SUBJECT: Bureau of Highway Instructional Memorandum 2001-04
Updated Asphalt Binder Certification Procedures and Project Documentation

The purpose of this memo is to notify department staff and contractors of the revised Asphalt Binder Certification Procedures (attached) and new project documentation requirements for asphalt binder and bond coat effective for the year 2001 construction season. These changes will be applied to all active construction projects and will not affect project costs. The MDOT Materials Quality Assurance Procedures Manual will be subsequently updated in the future to reflect these changes.

- I. Asphalt binder samples are taken daily from the Hot Mix Asphalt plants for certification verification testing. When non-specification binders are discovered, the procedures outlined in the attached certification procedures for asphalt binder will be followed. These procedures have been updated, with industry input, to address non-specification binders in a more timely manner and will be used by the Bituminous Unit of the Construction and Technology Division during the 2001 construction season.
- II. In order to document asphalt binder used on projects, the contractor will no longer be required to send asphalt binder or bond coat emulsion certifications to the MDOT project offices (see attached Section 5 of the Certification Procedures). The contractor will be responsible for keeping these documents on file for a period of three years after the project completion date.

As referenced in Section 501.02.A1 of the MDOT 1996 Standard Specifications for Construction, these materials will be covered by the contractor's written certification for each project:

“ The contractor shall certify in writing that the materials used in the mixture are from the same source as the materials used in developing the bituminous mixture design and the bond coat is from an approved source.”

If you have any questions or concerns regarding this memo or other asphalt binder issues, please call John Barak (517-322-1801) or Don Parker (517-322-5692).

Chief Operations Officer

Chief Engineer/Deputy Director
Bureau of Highway Technical Services

Attachment
BOHTS:C&T:MF:kab
Index: Asphalt

cc: C & T Staff
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CERTIFICATION PROCEDURES FOR ASPHALT BINDER

1. Scope

1.1 The Construction and Technology Division will allow suppliers to certify asphalt binder for use on Michigan Department of Transportation (MDOT) projects if the following criteria is met.

1.2 Approved Asphalt Binder Certifier - a supplier that provides asphalt binder to meet MDOT specifications. A certifier may be a refinery, a terminal or HMA producer. If any modifications or blending of binder from different sources is made at the HMA plant, the HMA producer shall be the certifier. A supplier must be approved at each location.

1.3 Laboratory - must be either the approved certifier's laboratory or a commercial laboratory. The laboratory shall be AASHTO accredited.

1.4 Letters and samples referred to in these procedures should be sent to:

Michigan Department of Transportation
Construction and Technology Division
Bituminous Services Unit
8885 Ricks Road
Lansing, MI 48909

2. Applying for Initial Certification Privileges

2.1 Applying for certification privileges must be done in writing and must contain the following information:

2.1.1 Certifier's name.

2.1.2 Location.

2.1.3 List of grades which will be certified.

2.1.4 A Quality Control Plan for review and approval by MDOT.

2.1.5 Test results for five production runs of binder. This must be accomplished for each grade of binder that will be certified.

2.1.6 Two 1.0 - quart samples of each binder grade shall be submitted with the application letter.

2.1.7 All specification tests pertaining to the binder grade must be performed for each grade of binder to be certified. The specification requirements for asphalt binder can be found in the current MDOT Standard Specifications for Construction. These test results shall be submitted in a report.

2.1.8 An example copy of the Certification Document (meeting the requirements of section 5).

2.1.9 The AASHTO Materials Reference Laboratory Reports for Bituminous Proficiency Samples from the past two years. These will be submitted by the laboratory that performs the quality assurance testing for the certifier.

2.1.10 A current copy of the AASHTO accreditation certificate.

2.1.11 A written and signed statement that the certifier will abide by the certification requirements.

2.2 MDOT will consider the request for certification privileges and may grant provisional approval to certify asphalt binder for an MDOT project. Based on continued satisfactory field and laboratory performance of asphalt binder from this location, the provisional approval for certification will be on a project-by-project basis for one construction season.

2.3 If certification privileges are granted, the applying supplier will be notified in writing by MDOT. The list containing the MDOT Approved Certifiers of asphalt binder, and the grades of binder which they are approved to certify, is found in the MDOT Materials Sampling Guide.

3. Obtaining Certification Privileges for Additional Grades of Binder

3.1 Applying for Certification Privileges must be done in writing and must contain the following:

3.1.1 List of grades which will be certified.

3.1.2 Two 1.0 - quart samples of each binder grade shall be submitted with the application letter.

3.1.3 All specification tests pertaining to the binder grade must be performed for each grade of binder to be certified.

4. Annual and Monthly Requirements

4.1 Annual testing samples must be submitted. These samples consist of two 1.0-quart cans of each grade of asphalt binder which the approved certifier intends to ship to MDOT projects. In order to be included on the approved certifier list for the upcoming season, binder samples must be received before February 1.

4.2 On a monthly basis, from May through October, the approved certifier will submit quality control test reports that comply with the quality control plan referred to in Subsection 2.1.4. This shall be done for each grade supplied for MDOT projects during the previous month.

4.3 Annual testing samples and monthly test results shall conform to the requirements of Table 904-1 in the 1996 Standard Specifications for Construction.

5. Certification Document

Each shipment shall be accompanied by a certification document. The certification document shall be transmitted to the contractor. The certification document shall contain the following:

- a. Approved certifier's name.
- b. Grade of asphalt binder.
- c. Tank or lot number.
- d. Quantity of asphalt binder shipped to MDOT projects (gallons at 60 F).
- e. Place of production.
- f. Source of shipment, if other than place of production.
- g. Purchaser and/or consignee and point of delivery.
- h. MDOT project and control section numbers.
- i. Bill of lading number.
- j. Carrier and truck or car number.
- k. The certification statement: "The (Name of approved certifier) certifies that the asphalt binder, as transported to the contractors plant, conforms to the MDOT specifications." This certification will be signed by a representative of the approved certifier.

6. MDOT Monitoring

Daily Certification Verification (CV) Samples (original samples of asphalt binder taken at the asphalt plant before incorporation into the mixture) will be taken and tested in accordance with the specification requirements described in the current Standard Specifications for Construction. These samples are taken to verify that the certified asphalt binder meets the required specifications.

The certification verification testing tolerance limits will be described by special provisions located in the project proposal.

7. Withdrawal and Reinstatement of Certification Privileges

7.1 When any test result, on a certification verification sample, is out of specification by more than the tolerance limits, MDOT will notify the approved certifier and contractor by phone and in writing. The Construction and Technology (C&T) Laboratory will determine the extent of the deficiencies through the following concurrent actions. These actions will be coordinated by the C&T laboratory.

7.1.1 The project engineer will be notified.

7.1.2 MDOT will increase CV sample testing for the consecutive days surrounding the original failing tests from the project.

7.1.3 MDOT will increase the amount of CV sample testing on the binder grade in question from other HMA plants.

7.1.4 The C&T Laboratory will require that the approved certifier and contractor will investigate all aspects of material loading, handling and delivery.

7.1.5 MDOT will witness the sampling of the material from a transport truck when deliveries are made to a HMA plant. Samples will be taken by the contractor according to Section 7. Sampling From Tank Cars, Tank Trucks, Distributor Trucks or Recirculating Storage Tanks of AASHTO T40-78 (1993). There will be four one gallon samples taken: for testing by MDOT, an independent AASHTO certified laboratory, a retained sample and a sample for the binder certifier. MDOT's test results will be used to determine specification compliance. The AASHTO certified laboratory results will be used for information. MDOT reserves the right to determine if the material meets all specification requirements.

7.2 If two consecutive samples from separate transport trucks are found to be out of specification by more than the tolerance limits, the approved certifier will be notified by fax and certified letter that they have lost their certification privileges for the subject binder only. All MDOT regions will also be notified. Contractors with projects affected by this change will then be required to have the asphalt binder, from this source and grade, tested and accepted for use on specific projects.

7.3 Certification privileges can be reinstated only if the certifier has corrected the identified deficiencies and has described the actions taken to prevent future shipment of nonconforming asphalt binder.